

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Application Review

Issue Date: xx/xx/2020

Region: Washington Regional Office
County: Craven
NC Facility ID: 2500197
Inspector's Name: Doug Byrd
Date of Last Inspection: 04/17/2019
Compliance Code: 3 / Compliance - inspection

<p style="text-align: center;">Facility Data</p> <p>Applicant (Facility's Name): Coastal Regional Solid Waste Management Authority (CRSWMA) Tuscarora Long-Term Regional Landfill</p> <p>Facility Address: Coastal Regional Solid Waste Management Authority (CRSWMA) Tuscarora Long-Term Regional Landfill 7400 Old Hwy 70 West New Bern, NC 28562</p> <p>SIC: 4953 / Refuse Systems NAICS: 562212 / Solid Waste Landfill</p> <p>Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V</p>	<p style="text-align: center;">Permit Applicability (this application only)</p> <p>SIP: 15A NCAC 02D .0516, 02D .0521, 02D .0524, 02D .1100, 02D .1110, 02D .1111, 02D .1806, 02Q .0711 NSPS: Subparts XXX, and IIII NESHAP: 40 CFR 61 Subpart M, 40 CFR 63 Subparts AAAA, ZZZZ, and CCCCCC PSD: N/A PSD Avoidance: N/A NC Toxics: Permit limitations for various TAPs 112(r): N/A Other: N/A</p>
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Contact Data			Application Data
<p style="text-align: center;">Facility Contact</p> <p>Bobby Darden Executive Director (252) 633-1564 PO Box 128 Cove City, NC 28523</p>	<p style="text-align: center;">Authorized Contact</p> <p>Bobby Darden Executive Director (252) 633-1564 PO Box 128 Cove City, NC 28523</p>	<p style="text-align: center;">Technical Contact</p> <p>Bobby Darden Executive Director (252) 633-1564 PO Box 128 Cove City, NC 28523</p>	<p>Application Number: 2500197.19A/.19B/.19C/.19D Date Received: 12/28/2018 Application Type: Renewal and Modifications Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 09755/T01 Existing Permit Issue Date: 10/22/2014 Existing Permit Expiration Date: 09/30/2019</p>

Total Actual emissions in TONS/YEAR:							
CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2017	0.7600	11.36	5.79	3.78	0.8100	2.22	0.7963 [Toluene]
2016	0.7700	11.38	6.01	4.21	0.8200	2.71	0.8455 [Toluene]
2015	0.7600	11.36	6.07	3.66	0.8100	2.72	0.8515 [Toluene]
2014	0.7500	11.34	5.97	3.34	0.8000	2.64	0.8260 [Toluene]
2013	0.7000	10.54	5.39	3.08	0.7500	2.36	0.7402 [Toluene]

<p>Review Engineer: Joshua L. Harris</p> <p>Review Engineer's Signature: _____ Date: _____</p>	<p style="text-align: center;">Comments / Recommendations:</p> <p>Issue: 09755/T02 Permit Issue Date: xx/xx/2020 Permit Expiration Date: xx/xx/2025</p>
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1. Purpose of Application

The Tuscarora Long-Term Regional Landfill is an active municipal solid waste (MSW) landfill located in New Bern, Craven County. The landfill has submitted the following applications:

- Application No. 2500197.19A – 502(b)(10) change to install a temporary flare for control of landfill gas (LFG) while working to install a permanent replacement.
- Application No. 2500197.19B – Renewal of the existing Title V air permit (timely submittal).
- Application No. 2500197.19C – 502(b)(10) change to replace the existing flare with a new unit of the same size.
- Application No. 2500197.19D – Significant Modification to include permit conditions for NSPS Subpart XXX.

These applications will be consolidated and processed under Application No. 2500197.19B and will go through the 30-day public notice and 45-day EPA review periods prior to issuance.

The facility contact for this application is Bobby Darden, Executive Director, (phone: 252-633-1564). A consultant, LaBella Associates P.C., was used for these applications. The contact at LaBella is Mousa Maimoun, Project Consultant, (phone: 704-837-2005).

2. Facility Description

The Tuscarora Long-Term Regional Landfill, owned and operated by the Coastal Regional Solid Waste Management Authority (CRSWMA), is a municipal solid waste (MSW) landfill located in New Bern, Craven County. The landfill is a lined Subtitle-D landfill comprised of six areas: the Interim Regional Landfill (closed), Phase 1 (closed), Phase 2 (temporarily closed), Phase 3 (active), Phase 4 (under construction), and Phase 5 (future planned). With the recently issued Solid Waste Permit (Permit No. 2509) the final buildout plan was changed such that the remainder of the previously planned Phases were consolidated into Phases 4 and 5, and roughly 8 additional acres of waste disposal area were permitted. Phase 5 will consist of a lateral expansion, and a vertical expansion over portions of Phases 1-4 of the landfill to reach the final elevations.

The landfill's permitted design capacity is 15,500,000 cubic yards, or 11,625,000 tons based on a waste density of 1,500 pounds per cubic yard. Final closeout is anticipated to be in CY2043, with the assumption that the waste disposal rate will increase 2.5% each year above the CY2018 rate. The landfill accepts both MSW and construction and demolition (C&D) wastes, which are commingled and disposed of within the same areas. The landfill estimates that MSW accounts for approximately 73% of the total waste accepted based on past acceptance rates and uses this assumption in the projections for future disposal.

The landfill was previously subject to the requirements on NSPS Subpart WWW, but the recent modification has triggered applicability of NSPS Subpart XXX. The landfill has an active gas collection and control system (GCCS), which was required since the landfill's NMOC emission rate exceeded the 50 Mg/yr threshold under NSPS WWW. LFG is collected and is either routed to an installed utility flare for incineration or is routed through a treatment system and sent to INGenco Wholesale Power, LLC – New Bern (Facility ID 2500196) for electricity generation; INGenco's generators are permitted under a separate Title V air permit (Permit No. 09616). INGenco owns and operates the treatment system, however, the landfill is ultimately responsible for compliance with the NSPS XXX requirements for LFG treatment.

Application Chronology

- 12/21/18 The Division of Air Quality (DAQ), Washington Regional Office (WaRO), received Application No. 2500197.19B, for renewal of the current Title V air permit. The application contained the required forms, and there was no request for confidentiality.
- 12/28/19 RCO received Application No. 2500197.19A which was a 502(b)(10) notification, dated December 19, 2018, for the installation of a temporary flare. This application will be consolidated with and processed under Application No. 2500197.19B.
- 01/18/19 RCO sent the facility a letter acknowledging receipt of permit application.
- 02/13/19 Joshua Harris and Mousa Maimoun exchanged multiple emails regarding the landfill
Through commencing construction on the Phase 4 expansion and the trigger date of NSPS
02/14/19 Subpart XXX. It was determined that construction commenced on February 13, 2019, that applicability of NSPS Subpart XXX was triggered, and that an application for a permit modification is required to be submitted.
- 05/17/19 DAQ received a copy of the revised GCCS design plan, postmarked May 13, 2019. The plan will be reviewed separately as an applicability determination, Tracking No. 3429.
- 06/04/19 Joshua Harris emailed Mousa Maimoun with information regarding submittal of the modification application.
- 06/06/19 Mousa Maimoun replied to the previous email stating that the application is being drafted for submittal.
- 06/19/19 Joshua Harris sent Mousa Maimoun an email regarding State toxics. Mr. Harris informed Mr. Maimoun that the toxics conditions in the permit can be removed, by request, since the landfill is subject to MACT AAAA, and can be exempted from permitting per 15A NCAC 02Q .0702(a)(27).
- 07/19/19 RCO received Application No. 2500197.19C which was a 502(b)(10) notification, dated July 19, 2019, for the installation of a permanent replacement flare. This application will be consolidated with and processed under Application No. 2500197.19B.
- 09/09/19 Application No. 2500197.19D for a Significant Modification to the facility's permit to include the NSPS Subpart XXX conditions was received by RCO. The application appeared complete for processing and included a request to remove the 02D .1100 and 02Q .0711 toxics conditions. The application did not include confidential materials and no application fee was required. The application will be consolidated and processed under Application No. 2500197.19B.
- 09/10/19 RCO sent the facility a letter acknowledging receipt of Application No. 2500197.19D.

- 09/16/19 Joshua Harris sent Mousa Maimoun an email requesting additional information regarding the manufacture dates of the emergency generators (ID Nos. IES-07 and IES-08).
- 09/17/19 Joshua Harris received an email from Mousa stating that IES-07 was manufactured in 2018, and IES-08 was manufactured in 2007.

Mr. Harris followed up with a second email regarding the request to remove the toxics conditions from the permit. Mr. Harris stated that the previous evaluation did not appear to be sufficient to complete the request, and that an additional modeling demonstration would be required. Mr. Harris stated that since the landfill is subject to MACT requirements, DAQ would perform the modeling, but that the facility may perform its own if they preferred to do so.

- 09/19/19 Mousa Maimoun replied, stating that the facility would like DAQ to perform the modeling for toxics and asked if the landfill would need to submit additional forms.
- 09/20/19 Joshua Harris replied with the requested information.
- 10/15/19 Joshua Harris received an email from Mousa Maimoun with modeling request forms attached.
- 10/22/19 Joshua Harris sent Mousa Maimoun additional information regarding modeling of facilities subject to MACT/NESHAP requirements and attached a copy of NCGS 143-215.107. Mr. Harris requested verification that the landfill would still like the modeling to be conducted by DAQ.
- 10/30/19 Joshua Harris received a phone call from Mousa Maimoun who had questions regarding modeling. Mr. Maimoun asked about the possibility of rescinding the request to remove the toxics conditions, and Mr. Harris stated that he would find out what impact that would have, if any, on the requirements for toxics evaluations and follow-up.

Mr. Maimoun also stated that the landfill may recalculate emission rates using a higher assumed collection efficiency based on the landfill's construction, and/or recalculate the LFG and methane generation rates using the AP-42 inputs as opposed to the NSPS inputs for the k and L_o parameters in LandGEM, which would conceivably reduce the calculated emission rates.

- 11/01/19 Joshua Harris spoke with Mousa Maimoun regarding the request to have the toxics conditions removed from the permit. Mr. Harris informed Mr. Maimoun that if the landfill did decide to rescind the request, then the permit conditions would remain intact, and that no re-modeling would have to occur for the landfill. He also requested that the Responsible Official send an email making that statement.
- 11/12/19 Joshua Harris received an email from Bobby Darden stating that he would like to withdraw the request to remove the toxics conditions from the permit. The 02D .1100 and 02Q .0711 toxics conditions will remain in the permit.

- 11/22/19 Joshua Harris sent an email to Bobby Darden requesting verification that the landfill still accepts asbestos-containing waste.
- 12/02/19 Bobby Darden responded stating that the landfill does still accept asbestos-containing wastes.
- 12/03/19 Joshua Harris sent electronic copies of the draft permit and review documents to Bobby Darden, Mousa Maimoun, Booker Pullen, Samir Parekh, Robert Fisher, Betsy Huddleston and Kurt Tidd for comments.
- 12/06/19 Booker Pullen responded with editorial comments.
- 12/09/19 Kurt Tidd responded with editorial comments from the WaRO.
- 12/10/19 Samir Parekh responded with no comments.
- 12/11/19 Mousa Maimoun responded with preliminary comments, and questions regarding DAQ's stance, described in Section 6 below, on compliance with NSPS XXX and compliance NSPS WWW. Specifically, Mr. Maimoun asked whether or not the landfill is required to submit the results for performance testing to be conducted on the recently replaced flare via the EPA's Compliance and Emissions Data Reporting Interface (CEDRI). Mr. Maimoun concluded stating that he may have additional comments that will be submitted after a meeting he has scheduled with the applicant.
- Mr. Harris replied to Mr. Maimoun stating that the landfill should report the results of the flare testing via CEDRI, and that copies still need to be submitted to DAQ for review per the requirements of 15A NCAC 02D .2600.
- 12/13/19 Mousa Maimoun sent Joshua Harris an email stating that there are no additional comments from the facility.
- Xx/xx/19 30-day public notice and 45-day EPA review periods begin.
- Xx/xx/19 Public notice period ends; [comments received].
- Xx/xx/19 EPA review period ends; [comments received].
- Xx/xx/19 Air Quality Permit Revision No. 09755T02 issued.

3. Table of Changes to Existing Permit No. 09755T02

Existing Page(s)	New Page(s)	Section	Description of Changes
Cover and Throughout	Cover and Throughout	--	<ul style="list-style-type: none"> Updated letterhead. Updated permit revision numbers and dates throughout. Updated PSD Increment Tracking statement.
Attachment to Cover	Attachment to Cover	--	<ul style="list-style-type: none"> Updated description of IES-02 to reflect that is a horizontal grinder. Added citation to IES-04B for applicability of GACT CCCCCC. Added two diesel-fired emergency generators as insignificant sources, ID Nos. IES-07 and IES-08. Updated URL for the DAQ MACT/GACT guidance website.
3	3	1 (Table)	<ul style="list-style-type: none"> Replaced NSPS WWW citation with NSPS XXX citation. Added NESHAP Subpart M citation. Removed the landfill gas treatment system portion of the description for CD-GCCS-1. Added stand-alone control device for the landfill gas treatment system as ID No. CD-Treatment. Updated description for the flare, ID No. CD-01. Updated table footnote.
3-4	4	2.1 A. (Table)	<ul style="list-style-type: none"> Added landfill gas treatment system as a control device. Updated NMOC standards and regulatory citation. Added row for asbestos. Added annotation for standards for hazardous air pollutants to include compliance with the requirements of NSPS Subpart WWW.
--	5-15	2.1 A.3.	Inserted conditions for NSPS Subpart XXX.
--	15-16	2.1 A.4.	Inserted conditions for 40 CFR 61, Subpart M.
5-6	17-24	2.1 A.5.	<ul style="list-style-type: none"> Relocated MACT Subpart AAAA conditions to this Section. Added conditions for compliance with the applicable requirements of NSPS Subpart WWW.
12-13	24	2.1 A.6.	Updated conditions for 15A NCAC 02D .1100 to reflect the latest permitting language.
13-14	24-25	2.1 A.7.	Updated conditions for 15A NCAC 02Q .0711 to reflect the latest permitting language.
13-14	25	2.1 A.7.d.	Removed pollutants that are no longer listed as toxic air pollutants in 15A NCAC 02D .0711.
4-5	25	2.1 A.8.	Relocated and updated language for odor requirements.
14-24	26-35	3	Updated General Conditions to latest version (version 5.3, 08/21/2018).

4. Changes in Equipment

- Added 241 HP diesel-fired emergency generator as insignificant emission source ID No. IES-07.
- Added 107 HP diesel-fired emergency generator as insignificant emission source ID No. IES-08.
- Created a stand-alone control device, CD-Treatment, for the treatment system, and removed the treatment system portion of the description of the gas collection and control system.
- Updated description of the landfill gas-fired flare (ID No. CD-01).

Title V Equipment Editor (TVEE) has been updated for the changes listed above.

The facility's permitted emission sources are as follows:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-01 NSPS XXX MACT AAAA 40 CFR 61 Subpart M	One municipal solid waste landfill	CD-GCCS-1	Gas collection and control system, with
		CD-Treatment	Landfill gas treatment system (filtration, compression, dewatering by knockout pot and refrigeration, and hydrogen sulfide treatment system), in parallel with
		CD-01	One ten-inch landfill gas-fired utility flare (2,000 acfm capacity, 60 million Btu per hour heat input at 500 Btu per cubic foot heat rate of landfill gas)

The facility's insignificant/exempt activities are as follows:

Emission Source ID No.	Emission Source Description
IES-02	Horizontal grinder (Diesel fuel-fired, 540 horsepower, nonroad engine)
IES-03	Leachate pond (914,000-gallon capacity, 30,000 square feet of surface area)
IES-04A	Diesel fuel storage tank (1,000-gallon capacity)
IES-04B GACT CCCCCC	Gasoline storage tank (500-gallon capacity)
IES-05	Screening operation (Diesel fuel-fired, 25 horsepower, nonroad engine)
IES-06	Compost turner (Diesel fuel-fired, 100 horsepower, nonroad engine)
IES-07 GACT ZZZZ, NSPS IIII	Diesel-fired emergency generator (241 horsepower)
IES-08 GACT ZZZZ, NSPS IIII	Diesel-fired emergency generator (107 horsepower)

5. NSPS, NESHAP, PSD, 112(r), CAM & Attainment Status

- **NSPS –**

- ✓ The MSW landfill (ID No. ES-01) is subject to 40 CFR 60, Subpart XXX, “Municipal Solid Waste Landfills that Commenced Construction, Reconstruction or Modification after July 17, 2014.” The Solid Waste Section issued a permit-to-construct for the Phase 4 lateral expansion on December 21, 2018, which increased the permitted design capacity and triggered the modification provisions of NSPS XXX. Construction on that expansion commenced on February 13, 2019, triggering applicability of NSPS XXX.
- ✓ The MSW landfill (ID No. ES-01) is NOT subject to 40 CFR 60, Subpart WWW, “Municipal Solid Waste Landfills,” since Subpart WWW is superseded by Subpart XXX.
- ✓ The diesel-fired emergency generators (ID Nos. IES-07 and IES-08) are subject to 40 CFR 60, Subpart IIII, “Stationary Compression Ignition Internal Combustion Engines,” because the dates, 2018 and 2007 respectively for IES-07 and IES-08, are after the applicability date of the NSPS regulation.

- **NESHAP –**

- ✓ The MSW landfill (ID No. ES-01) is subject to 40 CFR 63, Subpart AAAA “Municipal Solid Waste Landfills,” because it has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m³, and has estimated uncontrolled NMOC emissions equal to or greater than 50 Mg/yr.
- ✓ The MSW landfill (ID No. ES-01) is subject to 40 CFR 61, Subpart M “National Emission Standard for Asbestos,” since it is an active waste disposal site for asbestos-containing waste.
- ✓ The diesel-fired emergency generators (ID Nos. IES-07 and IES-08) are subject to 40 CFR 63, Subpart ZZZZ, “Reciprocating Internal Combustion Engines,” and are considered as new emergency engines under this regulation. Compliance with this subpart is achieved by complying with the requirements of NSPS Subpart IIII.
- ✓ The gasoline storage tank (ID No. IES-04B) is subject to 40 CFR 63, Subpart CCCCCC “Gasoline Dispensing Facilities” since the facility is an area source of HAPs, and the facility meets the definition of a gasoline dispensing facility as any stationary facility which dispenses gasoline into the tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine used solely for competition. Gasoline storage tanks are listed as affected sources under §63.11111(a), and there are no size distinctions.

Since IES-04B is an insignificant activity, there is no permit condition, however the facility is still required to comply with Subpart CCCCCC. The facility has the general duty to minimize emissions by operating and maintaining affected sources, and their associated air pollution control and monitoring equipment, in a manner consistent with safety and good air pollution practices for minimizing emissions. In addition, since the facility’s throughput is expected to be less than 10,000 gallons per month based on throughput reported on the facility’s annual AQEI, the facility is subject to the requirements of §63.11116. This section

states that the facility must handle the gasoline in a manner which will not result in vapor release to the atmosphere for an extended period of time. Measures to be taken include, but are not limited to:

- Minimize gasoline spills;
- Clean up spills as expeditiously as practicable;
- Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; and
- Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices.

There are no notification or reporting requirements for facilities with a throughput of less than 10,000 gallons per month, however, the facility shall supply records of gasoline throughput within 24 hours of a request by DAQ. Additionally, should the facility's monthly gasoline throughput exceed 10,000 gallons, the facility will be subject to the requirements of §63.11117 for facilities with a monthly throughput of 10,000 gallons of gasoline or more, or §63.11118 for facilities with a monthly throughput of 100,000 gallons of gasoline or more, whichever is applicable, and must meet the applicable notification, testing, monitoring, recordkeeping, and reporting requirements. If an affected source's throughput ever exceeds an applicable throughput threshold, the affected source will remain subject to the requirements for sources above the threshold, even if the affected source throughput later falls below the applicable source threshold. [§63.11111(i)]

- **PSD** – The facility's potential emissions do not exceed PSD permitting thresholds.
- ✓ Craven County has triggered increment tracking under PSD for PM₁₀, NO_x, and SO₂. This permitting action consumes the following increments:

Pollutant	Change due to inclusion of IES-07 and IES-08 (lb/hr)
PM ₁₀	+ 0.77
NO _x	+ 10.79
SO ₂	No change*

* SO₂ emissions from the emergency generators are negligible due to the low sulfur content of the fuel combusted. See the emissions calculations in Section 8.

- **112(r)** – The facility does not store any of the listed 112(r) chemicals in amounts that exceed the threshold quantities. Therefore, the facility is not required to maintain a written Risk Management Plan (RMP).
- **CAM** – Compliance Assurance Monitoring (CAM) does NOT apply since the sources are regulated by NSPS and MACT regulations which were proposed after November 15, 1990 and control the pollutants which would be subject to CAM.
- **Attainment status** – Craven County is in attainment for all criteria pollutants.

6. Regulatory Review

The facility is subject to the following air quality regulations in addition to the General Conditions:

- 15A NCAC 02D .0516: Sulfur Dioxide Emissions from Combustion Sources
- 15A NCAC 02D .0521: Control of Visible Emissions
- 15A NCAC 02D .0524: New Source Performance Standards, 40 CFR 60, Subpart XXX
- 15A NCAC 02D .1100: Control of Toxic Air Pollutants
- 15A NCAC 02D .1110: National Emission Standards for Hazardous Air Pollutants, 40 CFR 61, Subpart M
- 15A NCAC 02D .1111: Maximum Achievable Control Technology, 40 CFR 63, Subpart AAAA
- 15A NCAC 02D .1806: Control and Prohibition of Odorous Emissions
- 15A NCAC 02Q .0711: Emission Rates Requiring a Permit

The following permit conditions are being removed as part of this permit application:

- 15A NCAC 02D .0524: New Source Performance Standards, 40 CFR 60, Subpart WWW

15A NCAC 02D .0516: Sulfur Dioxide from Combustion Sources

Sulfur dioxide emissions from the facility's combustion sources shall be no more than 2.3 pounds per million Btu heat input. Sulfur dioxide emissions associated with diesel fuel combustion in reciprocating internal combustion engines are dependent upon the sulfur content of the fuel combusted. Using fuel with a sulfur content of 15 ppm and AP-42 Ch. 3 emission factors, the SO₂ emission rate on a per mmBtu basis is 0.002 lb/mmBtu. For LFG combustion in the utility flare, using AP-42 Ch. 2.4, Equations 3, 4, and 7, the SO₂ emission rate was determined to be 0.015 pounds per million Btu. Continued compliance is expected.

15A NCAC 02D .0521: Control of Visible Emissions

Visible emissions from the facility's LFG-fired utility flare (ID No. CD-01) shall not exceed 20% opacity when averaged over a six-minute period. DAQ inspectors have not observed visible emissions in excess of the limit during any site visit. Additionally, DAQ has not received any complaints of visible emissions from nearby residents. Continued compliance is expected.

15A NCAC 02D .0524, New Source Performance Standards, 40 CFR 60, Subpart XXX

Construction commenced on the Phase 4 expansion in February 13, 2019, triggering applicability of NSPS Subpart XXX. The facility is subject to the requirement to install and operate a GCCS, and has an existing system installed since the landfill was previously also required to operate a GCCS when it was subject to NSPS Subpart WWW. As such, a new condition will be included in the permit to include the monitoring, recordkeeping, and reporting requirements of NSPS Subpart XXX as they apply to a landfill which operates an active GCCS.

Since there is no "transitional language" in the regulation, DAQ's current interpretation of NSPS XXX compliance timeframes for landfills that were previously subject to the NSPS WWW requirement to operate a GCCS is that the landfill may have the full 30-month compliance timeframe to comply with the monitoring, recordkeeping, and reporting requirements of NSPS XXX for the GCCS. During the 30-month timeframe, the facility will be required to continue to comply with NSPS WWW; those requirements are enumerated within the MACT AAAA permit conditions, so continued compliance is expected. There are other portions of the NSPS XXX regulations that will still apply during this timeframe, and specific actions may need to be taken by the Permittee to comply with those requirements.

On May 13, 2019 the landfill submitted a revised GCCS design plan to include the expansion which was not covered under the previous plan. The updated design plan is under review for approval, and DAQ is awaiting additional information necessary to complete that review. The design plan submittal appeared to also meet the requirements of the initial Design Capacity and NMOC Emission Rate reports. Therefore, the landfill will be required to comply with the NSPS XXX conditions no later than November 13, 2021, 30 months from the submittal date.

In addition to updated conditions for NSPS XXX, the permit will contain requirements to conduct an initial performance test on the flare and submit the results within 60 days of reaching the maximum capacity or within 180 days of startup, whichever comes first. The flare was recently replaced with a similar unit; however, the new flare is still required to be tested to demonstrate compliance with the requirements of 40 CFR 60.18. The new flare was installed in August 2019, and it appears that this testing has not yet been conducted.

The treatment system which was previously listed within the description of the gas collection system (ID No. CD-GCCS-1) was broken out and a stand-alone control device was listed for the treatment system to account for the fact that the permit conditions will also contain requirements for the treatment of landfill gas prior to sale or other beneficial use. Landfill gas is sent to INGENCO Wholesale Power, LLC – New Bern, which owns and operates the treatment system, however, the landfill will ultimately be responsible for compliance with the NSPS XXX monitoring, recordkeeping and reporting requirements for landfill gas treatment systems. Compliance is expected.

15A NCAC 02D .1110: National Emission Standards for Hazardous Air Pollutants, 40 CFR 61, Subpart M

The landfill is an active disposal site for asbestos-containing wastes; therefore, it is subject to the requirements of this regulation. To comply, the facility must adhere to a general set of work practices which may include ensuring there are no visible emissions at the disposal site, covering waste daily with at least six inches of compacted non-asbestos material or use another dust suppression agent; the landfill may propose alternative methods for DAQ approval. The facility will be required to post signage and barriers if the method of compliance does not include covering the asbestos-containing waste. Closed portions of the landfill which have previously received asbestos-containing waste are also subject and are required to comply with the requirements of 40 CFR 61.151 for inactive waste disposal sites. The facility's current Solid Waste permit contains a requirement for the facility to comply with the requirements of 40 CFR 61, Subpart M, and continued compliance is expected.

15A NCAC 02D .1111, Maximum Achievable Control Technology, 40 CFR 63, Subpart AAAA

The MSW landfill (ID No. ES-01) is the subject source. Compliance with MACT Subpart AAAA is achieved by complying with the requirements of NSPS Subpart WWW. The condition has been updated to include the specific requirements of NSPS Subpart WWW since a reference condition for this regulation has been removed. This condition may need to be revisited in the future as EPA works to deconflict the relationships between the NSPS and MACT regulations. Continued compliance is expected.

15A NCAC 02D .1806, Control and Prohibition of Odorous Emissions

This is applicable facility wide. DAQ inspectors have not noted odors beyond the facility's property boundary, and neither DAQ nor the facility have received any odor complaints from nearby residents. Continued compliance is expected.

15A NCAC 02D .1100: Control of Toxic Air Pollutants and
15A NCAC 02Q .0711: Emission Rates Requiring a Permit

The facility is subject to 40 CFR 61, Subpart M and 40 CFR 63, Subpart AAAAA. Pursuant to 15A NCAC 02Q .0702(a)(27)(A), facilities subject to such regulations are exempt from permitting for toxic air pollutants, however the facility has requested to keep the toxics conditions in the permit.

This application does not result in any increase in emissions of toxic air pollutants from the landfill and flare beyond those already evaluated. However, there is a small increase in toxic emissions associated with the inclusion of the two insignificant diesel-fired emergency generators (ID Nos. IES-07 and 08). The landfill submitted emission rate calculations through CY2030.

The following parameters were used to determine the LFG generation rate in LandGEM:

Parameter	Value
Waste Acceptance Rate (TPY)	Historical, plus projected 2.5% increase in waste acceptance each year
Methane Generation Rate (k, year ⁻¹)	0.050
Potential Methane Generation Capacity (L ₀ , m ³ /Mg)	170
NMOC Concentration (ppmv)	717
Methane Content (%)	50
LFG Generation Rate (m ³ /yr)	3.988 x 10 ⁷ (through CY2030)

The following example calculation is for the emission of hydrochloric acid (HCl) created from the combustion of the chlorine compounds in the landfill gas-fired flare. The best methods to estimate emission are mass balance methods using site-specific data on total chloride [expressed in ppmv as the chloride ion (Cl⁻)]. [AP-42, Section 2.4.4.2 (November 1998) – Controlled Emissions]

- Flare design rating = 2,000 ft³/minute (or 56.63 m³/min = 3,398 m³/hour)
- Methane is only 50% of this gas stream (1,699 m³/hour)
- Q_{Cl⁻} = Emission rate of chloride ions, m³/hour
- C_{Cl⁻} = Concentration of chloride ions (42.0 ppmv, AP-42 default value)
- Multiplication factor for 50% methane concentration in landfill gas = 2.0
- Molecular weight of chloride ions = 35.45 g/gmole

$$Q_{Cl^-} = 2.0 \times Q_{CH_4} \times \left(\frac{C_{Cl^-}}{1 \times 10^6} \right) \text{ (AP-42, Equation 3)}$$

$$Q_{Cl^-} = 2.0 \times 1,699 \frac{m^3}{hour} \times \left(\frac{42.0 \text{ parts}}{1 \times 10^6} \right) = 0.143 \frac{m^3}{hour}$$

The mass of the pre-combustion chloride ions present in the methane were found using Equation 4 of AP-42, Section 2.4.4.2. The landfill assumes that the landfill gas temperature is 27°C:

$$UM_{Cl^-} = 0.143 \frac{m^3}{hour} \times \left[\frac{35.45 \text{ g/gmol} \times 1 \text{ atm}}{8.205 \times 10^{-5} \frac{m^3 \cdot atm}{gmol \cdot K} \times 1000 \frac{g}{kg} \times (273 + 27^\circ C) K} \right] \times 2.2 \frac{pounds}{kg}$$

$$UM_{Cl^-} = 0.453 \frac{pounds}{hour}$$

To calculate HCl formation, Equation 10 of Section 2.4-8 was used.

$$\text{HCl}_{\text{emissions}} = \text{UM}_{\text{Cl}^-} \times \frac{\eta_{\text{col}}}{100} \times 1.03 \times \frac{\eta_{\text{cnt}}}{100}$$

Where:

UM_{Cl^-} = Uncontrolled mass emission of Cl^- ions

η_{col} = Collection efficiency of the landfill gas collection system, percent (100%) *

η_{cnt} = Control efficiency of the landfill gas control flare (100%) *

* To calculate worst-case HCl emissions, the facility assumes that 100% of the generated Cl^- ions are collected and converted to HCl.

$$\text{HCl}_{\text{emissions}} = 0.453 \frac{\text{lb Cl}^-}{\text{hour}} \times \frac{100}{100} \times 1.03 \times \frac{100}{100} = 0.47 \frac{\text{lb HCl}}{\text{hour}}$$

The total emission rates of other pollutants from the landfill and flare were calculated using AP-42 Section 2.4-6 Equation 5:

$$\text{CM}_p = \left[\text{UM}_p \times \left(1 - \frac{\eta_{\text{col}}}{100} \right) \right] + \left[\text{UM}_p \times \frac{\eta_{\text{col}}}{100} \times \left(1 - \frac{\eta_{\text{cnt}}}{100} \right) \right]$$

Where:

CM_p = Controlled mass emissions of pollutant

UM_p = Uncontrolled mass emission of pollutant

η_{col} = Collection efficiency of the landfill gas collection system, percent (75%)

η_{cnt} = Control efficiency of the landfill gas control flare (98%)

Example calculation for toxic air pollutant benzene (lb/yr through CY2030):

Using Equations 3 & 4, benzene emissions from the landfill equal 531.76 lb/year:

$$\text{CM} = \left[531.76 \frac{\text{lb}}{\text{yr}} \times \left(1 - \frac{75}{100} \right) \right] + \left[531.76 \frac{\text{lb}}{\text{yr}} \times \frac{75}{100} \times \left(1 - \frac{98}{100} \right) \right] = 140.92 \frac{\text{lb Benzene}}{\text{year}}$$

The emission rate above is slightly different than the emission rate used to evaluate the landfill's total projected emissions since the comparison is made using emission rates through the flare that are based on the flare's maximum capacity. The same is true for other pollutants evaluated.

Toxic emissions from the emergency generators were calculated using emission factors from AP-42 Ch. 3.3-2. The following example represent the benzene emission rate assuming a maximum potential of 500 hours of operation per year for both engines:

$$348 \text{ hp (total)} \times 9.33 \times 10^{-4} \frac{\text{lb Benzene}}{\text{mmBtu}} \times 7000 \frac{\text{Btu}}{\text{hp} - \text{hr}} \times 10^{-6} \frac{\text{mmBtu}}{\text{Btu}} \times 500 \frac{\text{hr}}{\text{yr}} = 1.14 \frac{\text{lb Benzene}}{\text{yr}}$$

The following toxic emission rates through CY2030 were compared to their respective TPERs:

Toxic Air Pollutant	Averaging Period	Landfill Volume Emissions	Flare Emissions	Emergency Generator Emissions	Total	TPER	Modeling Required?
1,1,1-Trichloroethane (methyl chloroform)	lb/day	0.16	9.40×10^{-3}	-----	0.17	250	No
	lb/hr	6.51×10^{-3}	3.92×10^{-4}	-----	6.90×10^{-3}	64	No
1,1,2,2-Teterechloroethane	lb/yr	166.02	9.98	-----	176	430	No
1,1-Dichloroethene (vinylidene chloride)	lb/day	4.73×10^{-2}	2.85×10^{-3}	-----	5.02×10^{-2}	2.5	No
1,2-Dibromoethane	lb/yr	0.17	1.01×10^{-2}	-----	0.18	27	No
1,2-Dicholoroethane	lb/yr	36.15	2.17	-----	38.32	260	No
1,3 Butadiene	lb/yr	-----	-----	0.048	0.048	11	No
2-Butanone (MEK)	lb/day	1.25	7.51×10^{-2}	-----	1.33	78	No
	lb/hr	5.20×10^{-2}	3.13×10^{-3}	-----	5.51×10^{-2}	22.4	No
4-Methyl-2-pentanone (MIBK)	lb/day	0.46	2.75×10^{-2}	-----	0.49	52	No
	lb/hr	1.91×10^{-2}	1.15×10^{-3}	-----	2.03×10^{-2}	7.6	No
Acetaldehyde	lb/hr	-----	-----	1.87×10^{-3}	1.87×10^{-3}	6.8	No
Acrolein	lb/hr	-----	-----	2.25×10^{-4}	2.25×10^{-4}	0.02	No
Acrylonitrile	lb/day	0.82	4.93×10^{-2}	-----	0.87	0.4	YES
	lb/hr	3.42×10^{-2}	2.05×10^{-3}	-----	3.63×10^{-2}	0.22	No
Arsenic	lb/yr	-----	-----	4.87×10^{-3}	4.87×10^{-3}	0.053	No
Benzene	lb/yr	132.94	7.99	1.14	142.07	8.1	YES
Benzo(a)pyrene	lb/yr	-----	-----	2.29×10^{-4}	2.29×10^{-4}	2.2	No
Beryllium metal	lb/yr	-----	-----	3.65×10^{-3}	3.65×10^{-3}	0.28	No
Cadmium metal	lb/yr	-----	-----	3.65×10^{-3}	3.65×10^{-3}	0.37	No
Carbon disulfide	lb/day	0.11	6.48×10^{-3}	-----	0.12	3.9	No
Carbon tetrachloride	lb/yr	0.55	3.30×10^{-2}	-----	0.58	460	No
Chlorobenzene	lb/day	6.87×10^{-2}	4.13×10^{-3}	-----	7.28×10^{-2}	46	No
Chloroform	lb/yr	3.19	0.19	-----	3.38	290	No
Chromic acid	lb/day	-----	-----	1.75×10^{-4}	1.75×10^{-4}	0.13	No
p-Dichlorobenzene	lb/hr	3.14×10^{-3}	1.89×10^{-4}	-----	3.33×10^{-3}	16.8	No
Dichloromethane (methylene chloride)	lb/yr	1082.35	65.06	-----	1147.41	1600	No
	lb/hr	0.12	7.43×10^{-3}	-----	0.13	0.39	No
Ethyl mercaptan	lb/hr	1.44×10^{-2}	8.66×10^{-4}	-----	1.53×10^{-2}	0.025	No
Formaldehyde	lb/hr	-----	-----	2.87×10^{-3}	2.87×10^{-3}	0.04	No
n-Hexane	lb/day	1.38	8.31×10^{-2}	-----	1.46	23	No
Hydrogen chloride	lb/hr	-----	0.47	-----	0.47	0.18	YES
Hydrogen sulfide	lb/day	2.95	0.18	-----	3.13	1.7	YES
Manganese and compounds	lb/day	-----	-----	3.51×10^{-4}	3.51×10^{-4}	0.63	No
Mercury vapor	lb/day	1.43×10^{-4}	8.60×10^{-6}	1.75×10^{-4}	3.27×10^{-4}	0.013	No
Methanethiol (methyl mercaptan)	lb/hr	1.22×10^{-2}	7.33×10^{-4}	-----	1.29×10^{-2}	0.013	YES
Nickel metal	lb/day	-----	-----	1.75×10^{-4}	1.75×10^{-4}	0.13	No
Tetrachloroethylene (Perchloroethylene)	lb/yr	551.18	33.13	-----	584.31	13000	No
Toluene	lb/day	8.84	0.53	2.39×10^{-2}	9.39	98	No
	lb/hr	0.37	2.21×10^{-2}	9.96×10^{-4}	0.39	14.4	No
Trichloroethylene	lb/yr	330.16	19.85	-----	350.01	4000	No
Vinyl chloride	lb/yr	408.78	24.57	-----	433.35	26	YES
Xylene	lb/day	3.14	0.19	1.67×10^{-2}	3.35	57	No
	lb/hr	0.13	7.85×10^{-3}	6.94×10^{-4}	0.14	16.4	No

The landfill's toxic emission rates were evaluated in 2008, and the permit contains 02D .1100 emission rate limits for acrylonitrile, benzene, hydrogen sulfide, hydrogen chloride, methyl mercaptan, methylene chloride, and vinyl chloride. In a memo dated September 10, 2008, the AQAB determined that the landfill parameters were found to be consistent with those facilities in the landfill-modeling database that have demonstrated compliance with the applicable pollutant AALs, the Tuscarora Long-Term Regional Landfill would also be expected to model in compliance, and no further analysis was required.

Determinations of specific impacts at the Tuscarora Landfill's property line was not made as part of the 2008 analysis. For the purpose of this review, to establish a basis for compliance with the AALs, the facility's emission rates were compared to the worst cases within the database used by AQAB, including the emission rates for the emergency generator. The following impacts resulted:

Toxic Air Pollutant	Modeled Emission Rates*			Period	% AAL
	Landfill	Flare	Emergency Generators		
Acrylonitrile	429.76	25.785	-----	lb/yr	26.0%
Benzene	190.80	11.45	1.14	lb/yr	75.4%
Hydrogen chloride	-----	0.652	-----	lb/hr	32.0%
Hydrogen sulfide	4.32	0.259	-----	lb/day	4.4%
Methyl mercaptan	0.0177	0.001	-----	lb/hr	1.9%
Methylene chloride	1,528.81	91.73	-----	lb/yr	0.1%
Vinyl chloride	586.57	35.19	-----	lb/yr	86.7%

* Specific emission rates for the landfill and flare were taken from the review for the T00 permit revision.

The emission rate limits are listed below as they appear in the permit:

Emission Sources	Toxic Air Pollutants	Emission Limits
Municipal Solid Waste Landfill (ES-01) and Flare (CD-01)	Acrylonitrile	455.54 lb/yr
	Benzene	202.25 lb/yr
	Hydrogen chloride	0.652 lb/hr
	Hydrogen sulfide	4.58 lb/day
	Methyl mercaptan	0.0187 lb/hr
	Methylene chloride (Dichloromethane)	1620.54 lb/yr
	Vinyl chloride	621.76 lb/yr

Since the emergency generators (ID Nos. IES-07 and 08) are insignificant sources and are subject to MACT regulations, they do not appear in the table. However, the emission rates through the next renewal, including the emission rates from the emergency generators, are not expected to exceed any of the TPERs or the permitted emission rates that have been previously evaluated. Therefore, DAQ has determined that there is not an unacceptable risk to human health.

7. Other Regulatory Requirements

- A Zoning Consistency Determination is NOT required for these permit applications.
- The Significant Modification application (Application No. 2500197.19D) was sealed by Mousa Maimoun, who is a registered Professional Engineer in the State of North Carolina (Seal #049153).
- There are no application fees required for any of the submitted applications, including the Significant Modification application (Application No. 2500197.19D) since it was submitted due to a change in regulation.

8. Emissions Review

Pollutant	Potential After Controls / Limitations tons/yr	Potential Before Controls / Limitations tons/yr
PM (TSP)	3.99	0.19
PM ₁₀	3.99	0.19
PM _{2.5}	3.99	0.19
SO ₂	4.01	-----
NO _x	12.58	2.70
CO	12.23	0.58
VOC	11.61	43.22

The facility's actual emissions as reported on the annual AQEI can be seen in the table on page one of this document.

MSW Landfill Emissions:

The potential volume emissions, before and after controls, from the landfill surface (ID No. ES-1) were calculated using the methodology in AP-42 Chapter 2.4 (November 1998) and are based on a LFG generation rate of 3.988×10^7 m³/year, through CY2030, as determined using the LandGEM output, and default values for pollutant concentrations, VOC content, collection efficiency, and control efficiency. An example of these calculations is available in the air toxics review in Section 9.

In the application, the landfill included calculations for CO as a pollutant emitted from the landfill surface, however CO emissions from the landfill itself are typically associated with subsurface combustion. As such, AP-42 advises that the default value for CO should be used with caution [AP-42, Table 2.4-1 note "b"]. For the purposes of this review, CO emissions reported from the landfill surface have been disregarded since it does not appear that DAQ has received any reports of a subsurface fire at this facility.

Flare Emissions:

VOC emissions for the flare were calculated as above but are based on the maximum capacity of the flare, regardless of LFG generation rate from the landfill, and assume a 98% control efficiency.

Particulate, NOx, and CO emissions were calculated using the following emission factors from the 2008 Draft of AP-42, Table 2.4-4:

PM: 15 lb PM/10⁶ dry ft³ CH₄
NOx: 39 lb NOx/10⁶ dry ft³ CH₄
CO: 46 lb /10⁶ dry ft³ CH₄

The facility assumes that the LFG has a moisture content of 3.6% and that it consists of 50% methane.

$$\frac{2000 \text{ ft}^3}{\text{minute}} \times \frac{1 \text{ million}}{1 \times 10^6} \times \frac{60 \text{ minutes}}{\text{hour}} \times \frac{8,760 \text{ hours}}{\text{year}} \times \frac{(100 - 3.6\% \text{ moisture})}{100} \times \frac{50\% \text{ CH}_4}{100} = \frac{506.7 \text{ million dry ft}^3 \text{ CH}_4}{\text{year}}$$

Examples:

$$\frac{506.7 \text{ million dry ft}^3 \text{ CH}_4}{\text{year}} \times \frac{15 \text{ lb PM}}{\text{million ft}^3 \text{ CH}_4} \times \frac{1 \text{ ton}}{2000 \text{ lb}} = 3.80 \frac{\text{tons PM}}{\text{year}}$$

$$\frac{506.7 \text{ million dry ft}^3 \text{ CH}_4}{\text{year}} \times \frac{39 \text{ lb NOx}}{\text{million ft}^3 \text{ CH}_4} \times \frac{1 \text{ ton}}{2000 \text{ lb}} = 9.88 \frac{\text{tons NOx}}{\text{year}}$$

$$\frac{506.7 \text{ million dry ft}^3 \text{ CH}_4}{\text{year}} \times \frac{46 \text{ lb CO}}{\text{million ft}^3 \text{ CH}_4} \times \frac{1 \text{ ton}}{2000 \text{ lb}} = 11.65 \frac{\text{tons CO}}{\text{year}}$$

All particulate emissions from the combustion of landfill gas are considered as PM_{2.5}.

To calculate potential SO₂ emissions, AP-42 Chapter 2.4 was used:

- Flare design rating = 2,000 ft³/minute (or 56.63 m³/min = 3,398 m³/hour)
- Methane is only 50% of this gas stream (1,699 m³/hour)
- Q_S = Emission rate of reduced sulfur compounds, m³/hour
- C_S = Concentration of reduced sulfur compounds (46.9 ppmv, AP-42)
- Multiplication factor for 50% methane concentration in landfill gas = 2.0
- Molecular weight of sulfur = 32.06 g/mole

$$Q_s = 2.0 \times Q_{\text{CH}_4} \times \left(\frac{C_s}{1 \times 10^6} \right) \text{ (AP-42, Equation 3)}$$

$$Q_s = 2.0 \times 1,699 \frac{\text{m}^3}{\text{hour}} \times \left(\frac{46.9 \text{ parts}}{1 \times 10^6} \right) = 0.16 \frac{\text{m}^3}{\text{hour}}$$

The mass of the pre-combustion sulfur compounds present in the methane were found using Equation 4 of AP-42, Section 2.4.4.2.:

$$UM_s = 0.16 \frac{\text{m}^3}{\text{hour}} \times \left[\frac{32.06 \text{ g/gmol} \times 1 \text{ atm}}{8.205 \times 10^{-5} \frac{\text{m}^3 \cdot \text{atm}}{\text{gmol} \cdot \text{K}} \times 1000 \frac{\text{g}}{\text{kg}} \times (273 + 27^\circ\text{C}) \text{ K}} \right] \times 2.2 \frac{\text{lb}}{\text{kg}}$$

$$UM_s = 0.458 \frac{\text{lb S}}{\text{hour}}$$

To calculate SO₂ emitted from the combustion of sulfur compounds, Equation 10 of Section 2.4-8 was used:

$$\text{SO}_2 \text{ emitted} = UM_s \times \frac{\eta_{\text{col}}}{100} \times 2.0$$

Where:

UM_{cl} = Uncontrolled mass emission rate of sulfur compounds (0.458 lb sulfur/hour)

η_{col} = Collection efficiency of the landfill gas collection system, percent
(assumed 100% by facility)

2.0 = Ratio of the molecular weight of SO₂ to the molecular weight of Sulfur

$$\text{SO}_2 \text{ emitted} = 0.458 \frac{\text{lb}}{\text{hour}} \times \frac{100}{100} \times 2.0 \times 8760 \frac{\text{hours}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lb}} = 4.01 \frac{\text{tons SO}_2}{\text{year}}$$

Diesel-Fired Emergency Generators:

The increase in the facility-wide potential emissions from the uncontrolled diesel-fired emergency generators (ID Nos. IES-07 and IES-08) were calculated using emission factors for diesel fuel combustion in stationary reciprocating internal combustion engines found in AP-42. The number of operating hours for calculating potential emissions is limited to 500 hours per year for emergency engines.

The following emission factors were used:

PM: 2.20 x 10⁻³ lb/hp-hr (all particulate matter emitted is assumed to be as PM_{2.5})

NOx: 0.031 lb/hp-hr

CO: 6.68 x 10⁻³ lb/hp-hr

VOC: 2.51 x 10⁻³ lb/hp-hr (as TOC exhaust + crankcase)

[AP-42 Ch. 3.3]

SO₂: 8.09 x 10⁻³ · S lb/hp-hr (Where S = fuel sulfur content in percent)

[AP-42 Ch. 3.4]

The following are example calculations for PM, NO_x and SO₂ emissions from the engines based on the total power rating of 348 horsepower, and a fuel sulfur content of 15 ppm:

PM:

$$348 \text{ hp} \times 2.20 \times 10^{-3} \frac{\text{lb PM}}{\text{hp} - \text{hr}} = 0.77 \frac{\text{lb PM}}{\text{hour}}$$
$$0.77 \frac{\text{lb PM}}{\text{hour}} \times 500 \frac{\text{hours}}{\text{year}} \times \frac{\text{ton}}{2000 \text{ lb}} = 0.19 \frac{\text{tons PM}}{\text{year}}$$

NO_x:

$$348 \text{ hp} \times 0.031 \frac{\text{lb NO}_x}{\text{hp} - \text{hr}} = 10.79 \frac{\text{lb NO}_x}{\text{hour}}$$
$$10.79 \frac{\text{lb NO}_x}{\text{hour}} \times 500 \frac{\text{hours}}{\text{year}} \times \frac{\text{ton}}{2000 \text{ lb}} = 2.70 \frac{\text{tons NO}_x}{\text{year}}$$

SO₂:

$$348 \text{ hp} \times 8.09 \times 10^{-3} \frac{\text{lb SO}_2}{\text{hp} - \text{hr} - \%S} \times \frac{15 \text{ parts Sulfur}}{10^6} \times 100\% = 4.22 \times 10^{-3} \frac{\text{lb SO}_2}{\text{hour}}$$
$$0.77 \frac{\text{lb SO}_2}{\text{hour}} \times 500 \frac{\text{hours}}{\text{year}} \times \frac{\text{ton}}{2000 \text{ lb}} = 1.06 \times 10^{-3} \frac{\text{tons SO}_2}{\text{year}}$$

9. Statement of Compliance

The Tuscarora Long-Term Regional Landfill has no negative compliance history. Doug Byrd, WaRO DAQ, conducted the latest compliance inspection on April 17, 2019; the landfill was found to be in apparent compliance at that time.

10. Public Notice Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Consistent with 15A NCAC 02Q .0525, the EPA will have a concurrent 45-day review period. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit shall be provided to EPA.

The 30-day public notice period was from MONTH XX, 2019 through MONTH XX, 20XX.

The EPA 45-day review period was from MONTH XX, 2019 through MONTH XX, 20XX.

[Number of] comments were received during the public notice period and the EPA review period.

11. Comments and Recommendations

The permit renewal and modification applications for Tuscarora Long-Term Regional Landfill located in New Bern, Craven County, NC have been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined that this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. The DAQ recommends the issuance of Air Permit No. 09755T02.